



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

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DALLAS, TX 75202-2733

JUN 08 2009

Mr. James Moore
Standards and Implementation Team (MC-150)
Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, TX 78711-3087

Dear Mr. Moore:

The Environmental Protection Agency (EPA) has completed its technical review of site-specific copper criteria, which were submitted by the Texas Commission on Environmental Quality (TCEQ) in February 2008. The site-specific criteria will apply to a portion of the Willow Fork Drainage District Lateral Ditch VA1, an unclassified, intermittent stream with a presumed no significant aquatic life use, and to a portion of Buffalo Bayou above Tidal (segment 1014 of the San Jacinto River basin). EPA guidance allows states to develop site-specific criteria for waters for which default water quality criteria may not be appropriate.

Under Texas Pollutant Discharge Elimination System (TPDES) Permit No. 13558, the Cinco Municipal Utility District No. 1 is authorized to treat and discharge wastewater from the wastewater treatment facility to Willow Fork Drainage District Lateral Ditch VA1; thence to Buffalo Bayou. Due to the water quality characteristics of the facility's discharge from outfall 001, a water effects ratio (WER) study was performed (using 82% effluent from outfall 001) to determine if site-specific water quality criteria for copper would be more appropriate than the statewide copper criteria.

Our review of the WER study indicates that the statewide water quality criteria for copper may be adjusted to account for site-specific physical and chemical interactions which mitigate the toxicity of copper to aquatic organisms. The methodology used to determine the site-specific criteria is consistent with EPA's WER guidance for metals and with the previously-approved WER provision in §307.6(c)(9) of the *Texas Surface Water Quality Standards* (TX WQS), adopted July 26, 2000. From the study, WER values of 6.50 and 8.11 for dissolved copper were derived from two studies with toxicity tests conducted on *Ceriodaphnia dubia*. Please note that EPA recalculated the WER from the second study using the initial copper concentrations in simulated downstream water instead of the average copper concentrations. This modification was made because large increases in copper concentrations were reported in several test treatments at the end of the second study. A final WER of 7.26 for dissolved copper was calculated from the geometric mean of the two individual WER values.

Based on our technical review of the study performed, the criteria for copper in the TX WQS and the resulting WER of 7.26, EPA has determined that a site-specific freshwater acute water quality criterion of 47.6 µg/L and a site-specific freshwater chronic criterion of 35.1 µg/L

are approvable. However, in order for EPA to take a formal approval action under §303(c) of the Clean Water Act, fulfillment of the public participation requirements found at 40 CFR Part 25 for this site-specific water quality standard revision is necessary. In order to fulfill these requirements and to complete TCEQ's water quality standard submission, we request that TCEQ submit to EPA a copy of the public notice for this site-specific water quality standard revision, along with any comments received during the public comment period (or documentation that no comments were received). The public participation process may be completed through the permit application process, as noted in §307.6(c)(9) of the TX WQS.

If you should have any questions, please call me at (214) 665-6644 or have your staff contact Nelly Smith at (214) 665-7109.

Sincerely,



Philip Crocker

Chief

Watershed Management Section (6WQ-EW)

cc: Jason Godeaux, TCEQ - Water Quality Assessment Section (MC-150)
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Debbie Miller, TCEQ - Standards Group (MC-234)